AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently amended) A method for ~~optimizing~~ establishing a ~~network~~ connection between a first device and a second device, said first device comprising a first ~~packet~~ protocol driver, a first application, a first socket layer disposed between said first protocol driver and said first application, and a first NIC driver, said second device comprising a second NIC driver, ~~and a second packet protocol, said first packet protocol comprising a connection setup portion, said second protocol comprising a data transfer portion,~~ said method comprising:

providing a first filter between said first socket layer and said first protocol driver, said first filter being external to said first NIC driver and first NIC hardware that is driven by said first NIC driver;

providing a first offload hardware in said first device;

providing a second filter in said second device;

receiving, using said first filter, a request from said first application through said first socket layer;

examining, using said first filter, a transport handle in said request to determine whether said connection is an offload connection;

processing said request to produce a packet set, said processing being performed by said first offload hardware if said connection is an offload connection, said processing being performed by said first protocol driver if said connection is not said offload connection, said packet set including one or more ordered packets;

sending, using said first NIC driver and said first NIC hardware, said packet set to said second device;

determining, using said second NIC driver, whether said packet set contains an offload transport handle; and

passing said packet set to said second filter if said packet set contains said offload transport handle.

~~initiating said network connection from said first device to set second device using said first packet protocol;~~

~~receiving an acknowledgement from said second device; and,~~

~~initiating a data transfer between said first device and said second using said second packet protocol.~~

2. (Currently amended) The method of claim 1, wherein said second filter is provided between a second socket layer and a second protocol driver in said second device. ~~first packet protocol comprises a transport protocol.~~

3. (Currently amended) The method of claim ~~2~~ 1, wherein said first offload hardware is implemented in said first NIC hardware. ~~first packet protocol comprises TCP.~~

4. (Currently amended) The method of claim ~~3~~ 1, wherein said processing is performed by said first protocol driver if said connection is an IPsec connection. ~~first packet protocol comprises a transport protocol other than TCP.~~

5. (Currently amended) The method of claim 1, wherein said transport handle pertains to at least one of hardware capabilities of said first device and a routing table. ~~comprises an operating system, said operating system comprises said first packet protocol.~~

6. (Currently amended) The method of claim 1, wherein at least one of said first protocol driver and said second ~~packet~~ protocol ~~comprises~~ is configured for processing a transport protocol.

7. (Currently amended) The method of claim ~~6~~ 1, wherein at least one of said first protocol driver and said second ~~packet~~ protocol ~~comprises~~ is configured for processing TCP.

8. (Currently amended) The method of claim ~~7~~ 1, at least one of said first protocol driver and said second ~~packet~~ protocol ~~comprises~~ is configured for processing IP. ~~a transport protocol other than TCP.~~

9. (Currently amended) The method of claim 1~~,~~ further comprising providing a second offload hardware in said second device, said second offload hardware configured for re-assembling said packet set into a data stream. ~~wherein said first device comprises an integrated circuit, said integrated circuit comprises said second packet protocol.~~

10. (Currently amended) The method of claim ~~9~~ 1, wherein said determining includes detecting at least one of a connection establishment handshake and a handshake termination between said first device and said second device. ~~first device comprises a computer component card, said computer component card comprises said integrated circuit.~~

11. (Currently amended) The method of claim ~~10~~, wherein said determining includes using said second filter. ~~computer component card is a PCI card.~~

12. (Currently amended) The method of claim ~~3~~1, wherein said first protocol driver is supplied with an operating system of said first device and without being modified. ~~computer component card is a PCI-X card.~~

13. (Currently amended) An apparatus ~~for optimizing a network connection between a first device and a~~
~~second device, said first device comprising a first packet protocol and a second packet protocol, said first packet protocol comprising a connection setup portion, said second protocol comprising a data transfer portion,~~ comprising:

an application;

a socket layer;

a filter configured to receive a request from said application through said socket layer and to examine a transport handle in said request for determining whether a connection pertaining to said request is an offload connection;

a protocol driver configured to process said request into a packet set if said connection is not said offload connection, said packet set including one or more ordered packets;

an offload hardware configured to process said request into said packet set if said connection is said offload connection;

a NIC driver configured to transmit said packet set; and

NIC hardware driven by said NIC driver,

wherein said filter is disposed between said socket layer and said protocol driver and external to said NIC driver and said NIC hardware.

~~means for initiating said network connection from said first device to set second device using said first packet protocol;~~

~~means for receiving an acknowledgement from said second device; and,~~

~~means for initiating a data transfer between said first device and said second using said second packet protocol.~~

14. (Currently amended) The apparatus of claim ~~1~~ 13, wherein said filter is included in an operating system of said apparatus. ~~first packet protocol comprises a transport protocol.~~

15. (Currently amended) The apparatus of claim ~~2~~ 13, wherein said offload hardware is implemented in said NIC hardware. ~~first packet protocol comprises TCP.~~

16. (Currently amended) The apparatus of claim ~~3~~ 13, wherein said protocol driver is configured to process said request if said connection is an IPsec connection. ~~first packet protocol comprises a transport protocol other than TCP.~~

17. (Currently amended) The apparatus of claim ~~1~~ 13, wherein said transport handle pertains to at least one of hardware capabilities of said apparatus and a routing table. ~~first device comprises an operating system, said operating system comprises said first packet protocol.~~

18. (Currently amended) The apparatus of claim ~~1~~ 13, wherein said ~~second packet protocol comprises~~ offload hardware is configured to process a transport protocol.

19. (Currently amended) The apparatus of claim ~~6~~ 13, wherein said ~~second packet protocol comprises~~ offload hardware is configured to process TCP.

20. (Currently amended) The apparatus of claim ~~7~~ 13, wherein said ~~second packet protocol comprises~~ offload hardware is configured to process IP. ~~a transport protocol other than TCP.~~

21. (Currently amended) The apparatus of claim ~~1~~ 13, wherein said offload hardware is further configured to re-assemble an incoming packet set into a data stream, said incoming packet set including one or more packets. ~~first device comprises an integrated circuit, said integrated circuit comprises said second packet protocol.~~

22. (Currently amended) The apparatus of claim ~~9~~ 13, wherein said NIC driver is further configured to determine whether an incoming packet set contains an offload transport handle and to, if said incoming packet set contains said offload transport handle, pass said incoming packet set to said filter. ~~first device comprises a computer component card, said computer component card comprises said integrated circuit.~~

23. (Currently amended) The apparatus of claim ~~10~~ 13, wherein said filter is further configured to determine whether an incoming packet set contains an offload transport handle. ~~computer component card is a PCI card.~~

24. (Currently amended) The apparatus of claim ~~10~~ 13, wherein said protocol driver is included in an operating system of said apparatus without being modified. ~~computer component card is a PCI-X card.~~